

Installation

Nút Right Control để chuyển giữa Host và Guest



The screenshot shows the VirtualBox download page. On the left is a sidebar with links: About, Screenshots, Downloads, Documentation, End-user docs, Technical docs, Contribute, and Community. The main content area has a header 'Download VirtualBox' and a sub-header 'VirtualBox binaries'. It explains that by downloading, users agree to the license and provides links for the latest 6.1 packages. Under 'VirtualBox 7.0.2 platform packages', there is a list of links for different operating systems, with 'Windows hosts' highlighted by a red box. Below this, it mentions the GPL version 3 and provides a changelog link. A note states that after upgrading VirtualBox, it's recommended to upgrade the guest additions. Another red box highlights the 'VirtualBox 7.0.2 Oracle VM VirtualBox Extension Pack' section, which includes a link for 'All supported platforms'. The bottom section is for the 'VirtualBox 7.0.2 Software Developer Kit (SDK)' with a link for 'All platforms'.

Download VirtualBox

Here you will find links to VirtualBox binaries and its source code.

VirtualBox binaries

By downloading, you agree to the terms and conditions of the respective license.

If you're looking for the latest VirtualBox 6.1 packages, see [VirtualBox 6.1 builds](#). Version 6.1 will remain supported until December 2023.

VirtualBox 7.0.2 platform packages

- [Windows hosts](#)
- [macOS / Intel hosts](#)
- [Developer preview for macOS / Arm64 \(M1/M2\) hosts](#)
- [Linux distributions](#)
- [Solaris hosts](#)
- [Solaris 11 IPS hosts](#)

The binaries are released under the terms of the GPL version 3.

See the [changelog](#) for what has changed.

You might want to compare the checksums to verify the integrity of downloaded packages. *The SHA256 checksums should be favored as the MD5 algorithm must be treated as insecure!*

- [SHA256 checksums, MD5 checksums](#)

Note: After upgrading VirtualBox it is recommended to upgrade the guest additions as well.

VirtualBox 7.0.2 Oracle VM VirtualBox Extension Pack

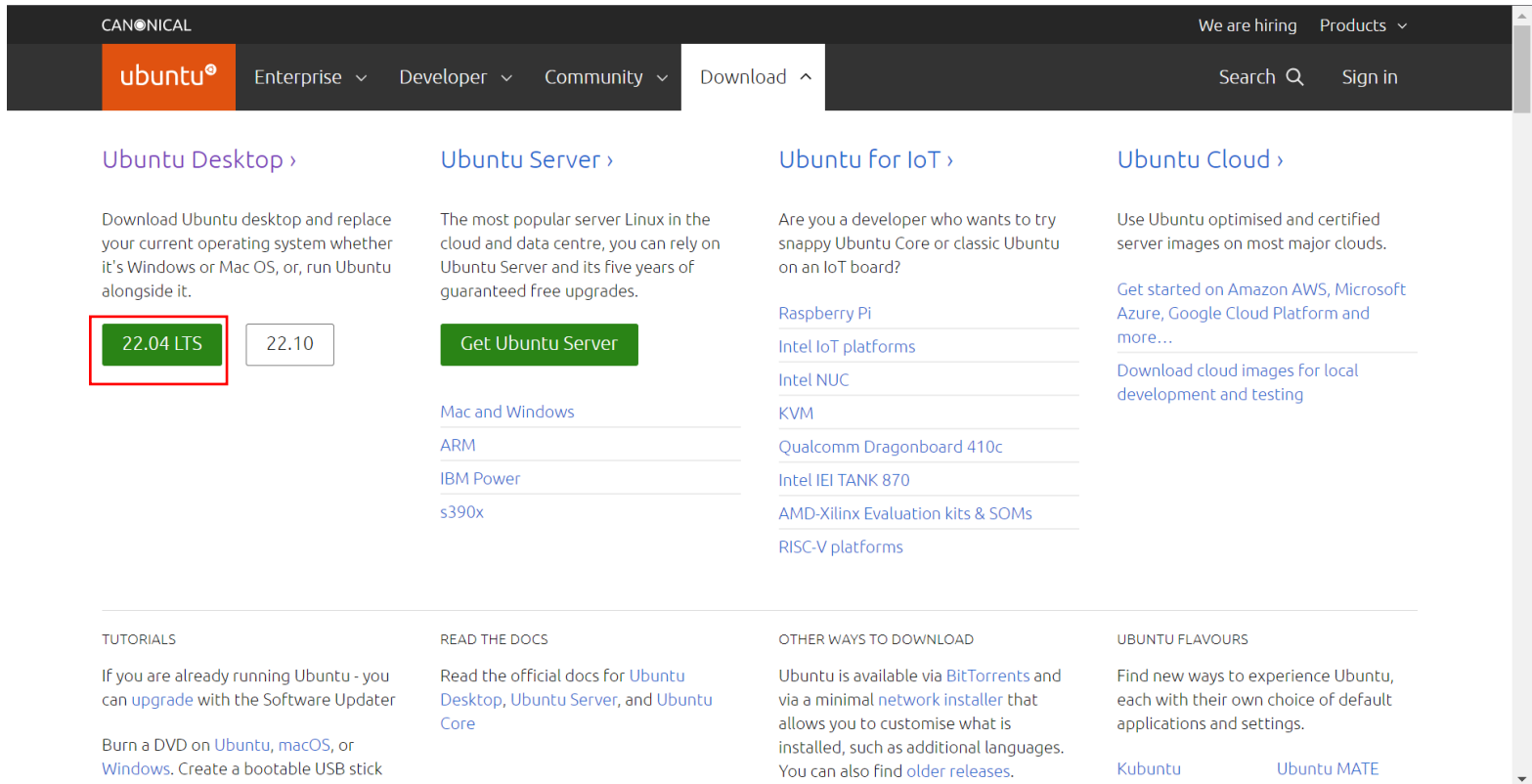
- [All supported platforms](#)

Support VirtualBox RDP, disk encryption, NVMe and PXE boot for Intel cards. See [this chapter from the User Manual](#) for an introduction to this Extension Pack. The Extension Pack binaries are released under the [VirtualBox Personal Use and Evaluation License \(PUEL\)](#). *Please install the same version extension pack as your installed version of VirtualBox.*

VirtualBox 7.0.2 Software Developer Kit (SDK)

- [All platforms](#)

sau khi cài ubuntu xong thì cài extension pack vào



The screenshot shows the Ubuntu download page. The top navigation bar includes the Canonical logo, the Ubuntu logo, and links for Enterprise, Developer, and Community. There are also links for 'We are hiring', 'Products', 'Search', and 'Sign in'. The main content area is divided into four columns: Ubuntu Desktop, Ubuntu Server, Ubuntu for IoT, and Ubuntu Cloud. Under Ubuntu Desktop, there are two buttons for '22.04 LTS' (highlighted with a red box) and '22.10'. Under Ubuntu Server, there is a 'Get Ubuntu Server' button and a list of supported architectures: Mac and Windows, ARM, IBM Power, and s390x. Under Ubuntu for IoT, there is a list of supported devices: Raspberry Pi, Intel IoT platforms, Intel NUC, KVM, Qualcomm Dragonboard 410c, Intel IEI TANK 870, AMD-Xilinx Evaluation kits & SOMs, and RISC-V platforms. Under Ubuntu Cloud, there is a link for 'Get started on Amazon AWS, Microsoft Azure, Google Cloud Platform and more...' and a link for 'Download cloud images for local development and testing'. The bottom section is divided into four columns: TUTORIALS, READ THE DOCS, OTHER WAYS TO DOWNLOAD, and UBUNTU FLAVOURS. Each column contains links to relevant resources.

CANONICAL

ubuntu® Enterprise ▾ Developer ▾ Community ▾ Download ▾

We are hiring Products ▾

Search 🔍 Sign in

Ubuntu Desktop ▾

Download Ubuntu desktop and replace your current operating system whether it's Windows or Mac OS, or, run Ubuntu alongside it.

22.04 LTS

22.10

Ubuntu Server ▾

The most popular server Linux in the cloud and data centre, you can rely on Ubuntu Server and its five years of guaranteed free upgrades.

Get Ubuntu Server

Mac and Windows

ARM

IBM Power

s390x

Ubuntu for IoT ▾

Are you a developer who wants to try snappy Ubuntu Core or classic Ubuntu on an IoT board?

Raspberry Pi

Intel IoT platforms

Intel NUC

KVM

Qualcomm Dragonboard 410c

Intel IEI TANK 870

AMD-Xilinx Evaluation kits & SOMs

RISC-V platforms

Ubuntu Cloud ▾

Use Ubuntu optimised and certified server images on most major clouds.

Get started on Amazon AWS, Microsoft Azure, Google Cloud Platform and more...

Download cloud images for local development and testing

TUTORIALS

If you are already running Ubuntu - you can [upgrade](#) with the Software Updater

Burn a DVD on [Ubuntu](#), [macOS](#), or [Windows](#). Create a bootable USB stick

READ THE DOCS

Read the official docs for [Ubuntu Desktop](#), [Ubuntu Server](#), and [Ubuntu Core](#)

OTHER WAYS TO DOWNLOAD

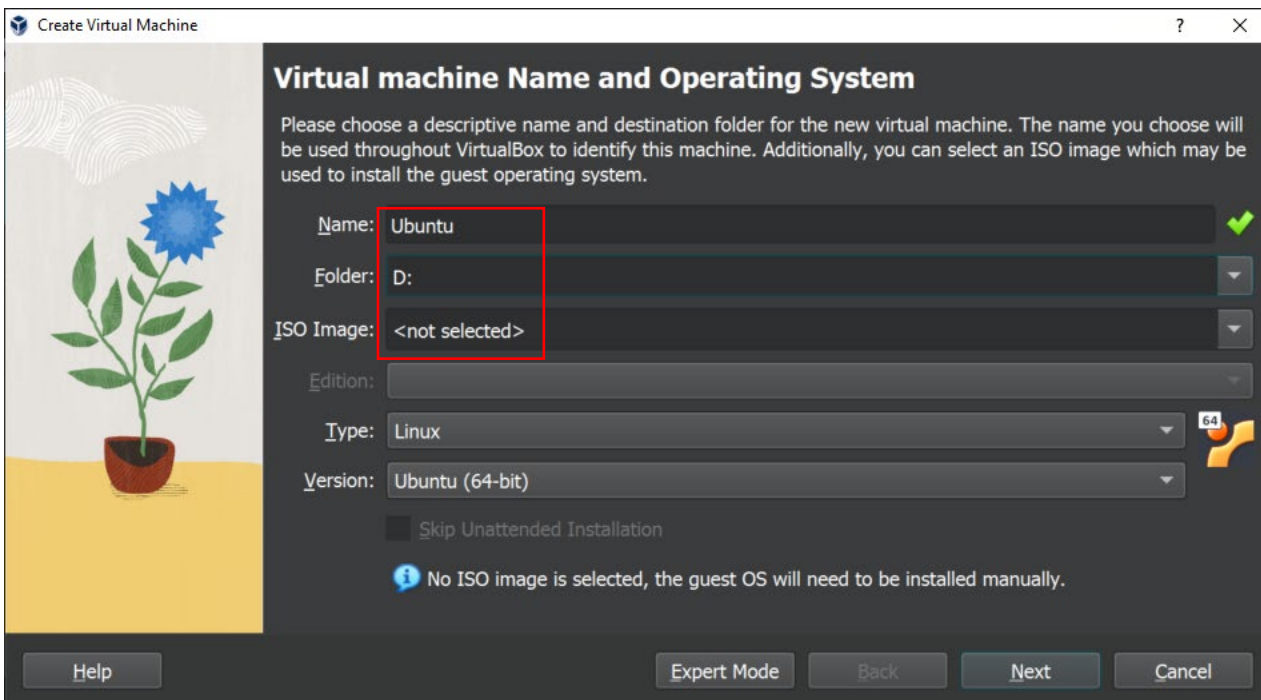
Ubuntu is available via [BitTorrents](#) and via a minimal [network installer](#) that allows you to customise what is installed, such as additional languages. You can also find [older releases](#).

UBUNTU FLAVOURS

Find new ways to experience Ubuntu, each with their own choice of default applications and settings.

[Kubuntu](#)


[Ubuntu MATE](#)



Create Virtual Machine

?

×



Hardware

You can modify virtual machine's hardware by changing amount of RAM and virtual CPU count. Enabling EFI is also possible.

Base Memory:

4 MB

16384 MB

4096 MB

Processors:

1 CPU

8 CPUs

2

☐ Enable EFI (special OSes only)

Help

Back


Next

Cancel

Create Virtual Machine

?

×



Virtual Hard disk

If you wish you can add a virtual hard disk to the new machine. You can either create a new hard disk file or select an existing one. Alternatively you can create a virtual machine without a virtual hard disk.

☒ Create a Virtual Hard Disk Now

Disk Size:

4.00 MB

2.00 TB

25.00 GB

☐ Pre-allocate Full Size

☐ Use an Existing Virtual Hard Disk File

Empty

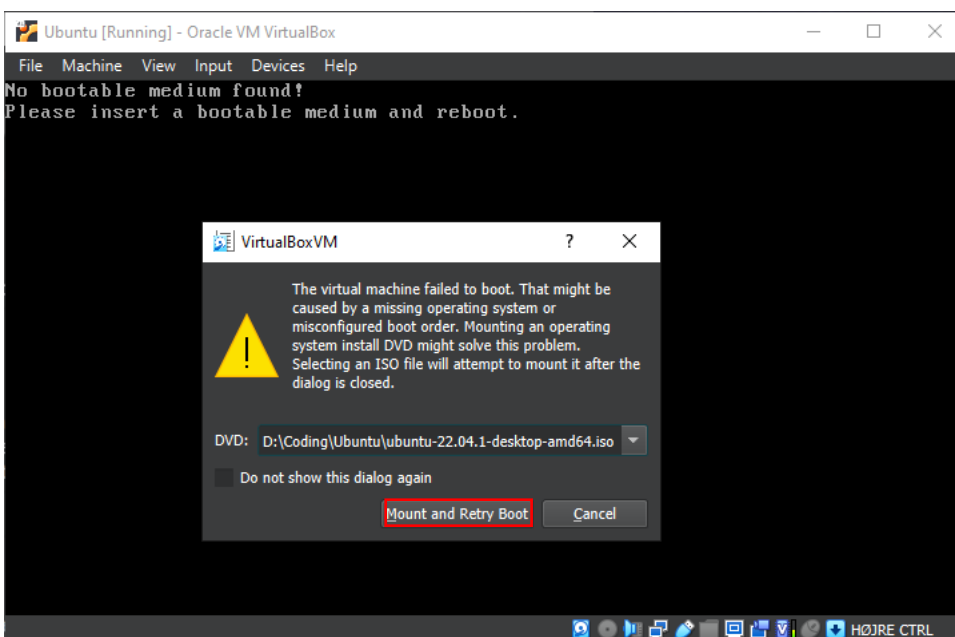
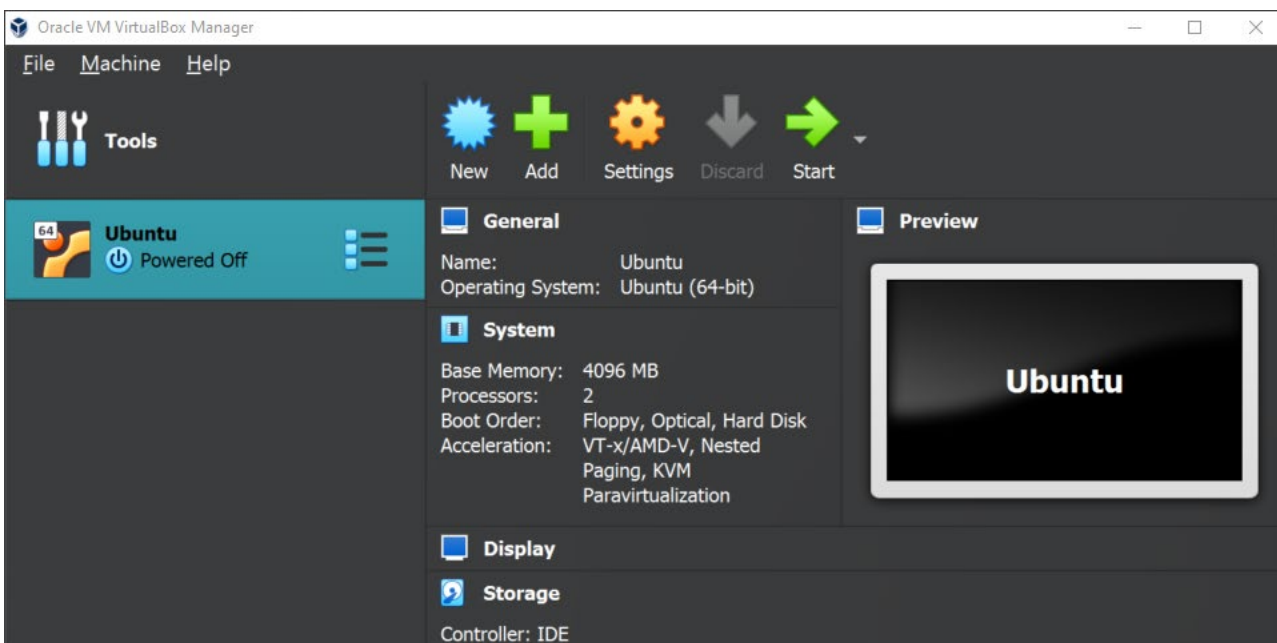
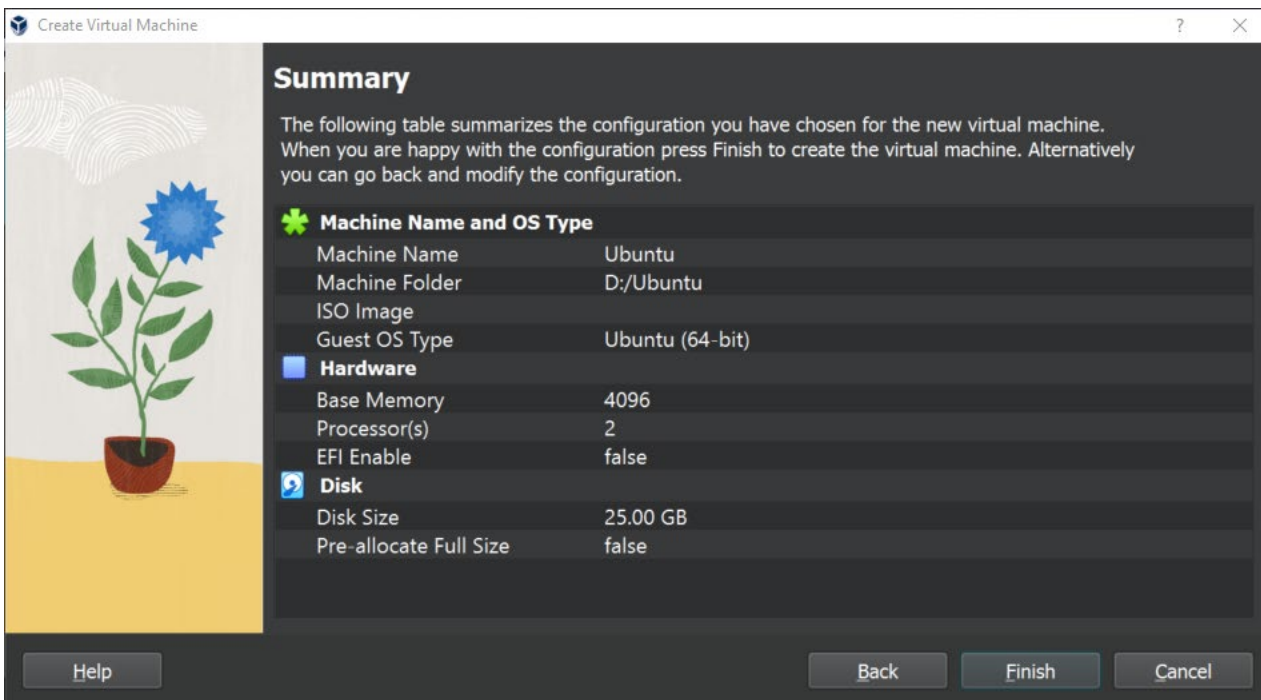
☐ Do Not Add a Virtual Hard Disk

Help

Back

Next

Cancel



GNU GRUB version 2.06

```
*Try or Install Ubuntu
Ubuntu (safe graphics)
OEM install (for manufacturers)
Test memory
```

Use the ↑ and ↓ keys to select which entry is highlighted.
Press enter to boot the selected OS, 'e' to edit the commands
before booting or 'c' for a command-line.

Nov 10 06:26

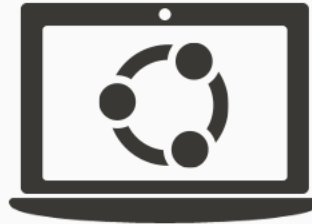
Install

Welcome

English
Español
Esperanto
Euskara
Français
Gaeilge
Galego
Hrvatski
Íslenska
Italiano
Kurdî
Latviski
Lietuviškai
Magyar
Nederlands
No localization (UTF-8)
Norsk bokmål
Norsk nynorsk



Try Ubuntu



Install Ubuntu

You can try Ubuntu without making any changes to your computer, directly from this CD.

Or if you're ready, you can install Ubuntu alongside (or instead of) your current operating system. This shouldn't take too long.

You may wish to read the [release notes](#).

Keyboard layout

Choose your keyboard layout:

Georgian	English (US)
English (Australian)	English (US) - Cherokee
English (Cameroon)	English (US) - English (Colemak)
English (Ghana)	English (US) - English (Colemak-DH ISO)
English (Nigeria)	English (US) - English (Colemak-DH)
English (South Africa)	English (US) - English (Dvorak)
English (UK)	English (US) - English (Dvorak, alt. intl.)
English (US)	English (US) - English (Dvorak, intl., with dead keys)
Esperanto	English (US) - English (Dvorak, left-handed)
Estonian	English (US) - English (Dvorak, right-handed)
Faroese	English (US) - English (Macintosh)
Filipino	English (US) - English (Norman)
Finnish	English (US) - English (US, Symbolic)
French	English (US) - English (US, alt. intl.)

Type here to test your keyboard

Detect Keyboard Layout

Quit

Back

Continue

Updates and other software

What apps would you like to install to start with?

☒ Normal installation

Web browser, utilities, office software, games, and media players.

☐ Minimal installation

Web browser and basic utilities.

Other options

☒ Download updates while installing Ubuntu

This saves time after installation.

☐ Install third-party software for graphics and Wi-Fi hardware and additional media formats

This software is subject to license terms included with its documentation. Some is proprietary.

Quit

Back

Continue

Installation type

This computer currently has no detected operating systems. What would you like to do?

☒ Erase disk and install Ubuntu

Warning: This will delete all your programs, documents, photos, music, and any other files in all operating systems.

Advanced Features... None selected

☐ Something else

You can create or resize partitions yourself, or choose multiple partitions for Ubuntu.

Quit

Back

Install Now

Installation type

This computer currently has no detected operating systems. What would you like to do?

☒ Erase disk and install Ubuntu

Warning: This will delete all your programs, documents, photos, music, and any other files in all operating systems.

Advanced Features... None selected

Write the changes to disks?

If you continue, the changes listed below will be written to the disks. Otherwise, you will be able to make further changes manually.

The partition tables of the following devices are changed:
SCSI3 (0,0,0) (sda)

The following partitions are going to be formatted:
partition #2 of SCSI3 (0,0,0) (sda) as ESP
partition #3 of SCSI3 (0,0,0) (sda) as ext4

Go Back

Continue

Back

Install Now

Install

Where are you?

[Back](#)[Continue](#)

Install

Who are you?

Your name:



Your computer's name:



The name it uses when it talks to other computers.

Pick a username:



Choose a password:

**Short password**

Confirm your password:

☐ Log in automatically☒ Require my password to log in☐ Use Active Directory

You'll enter domain and other details in the next step.

[Back](#)[Continue](#)

Install

Welcome to Ubuntu

Fast and full of new features, the latest version of Ubuntu makes computing easier than ever. Here are just a few cool new things to look out for...



> Copying files...

Skip

Installation Complete



Installation is complete. You need to restart the computer in order to use the new installation.

Restart Now

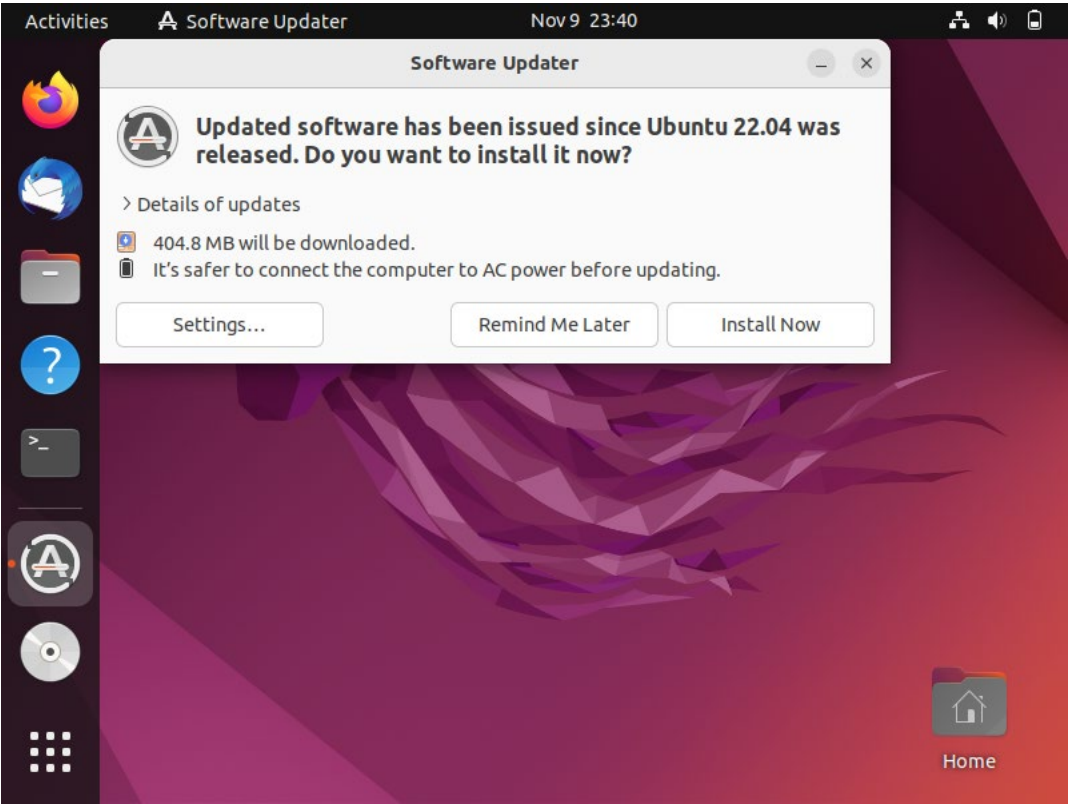
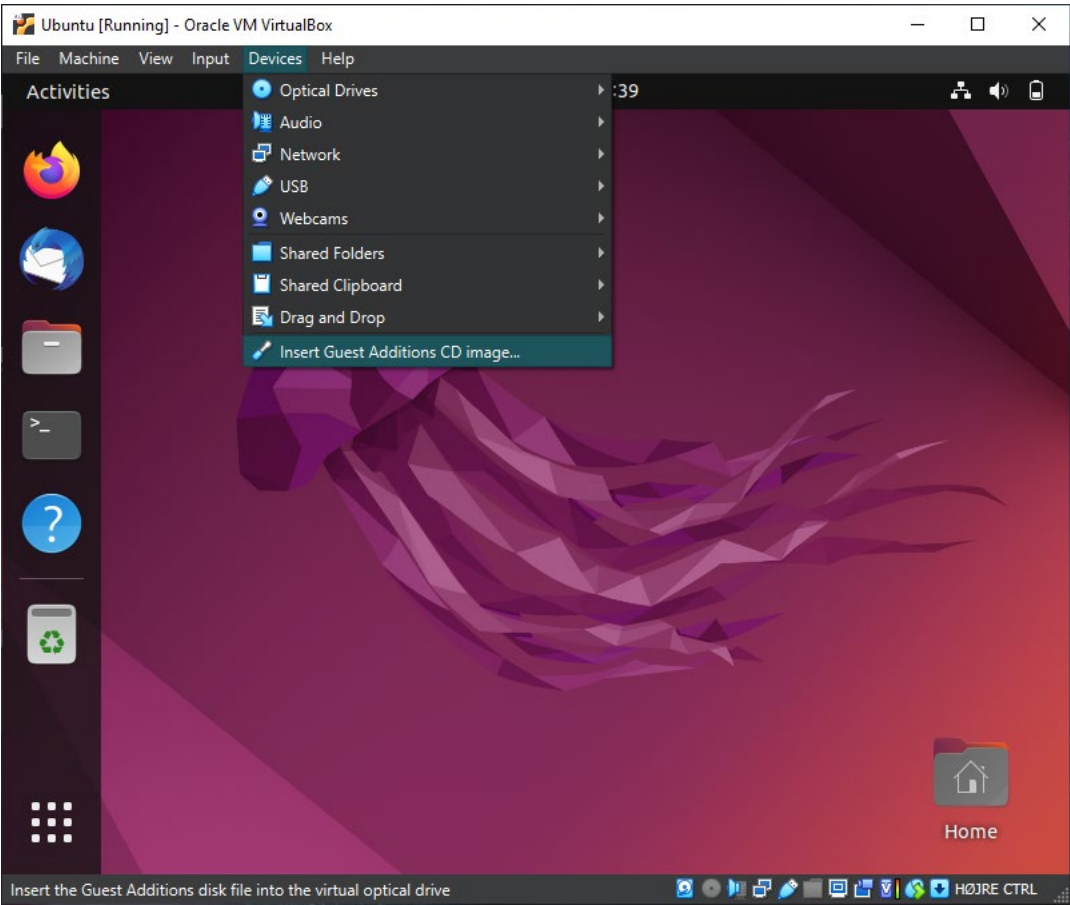


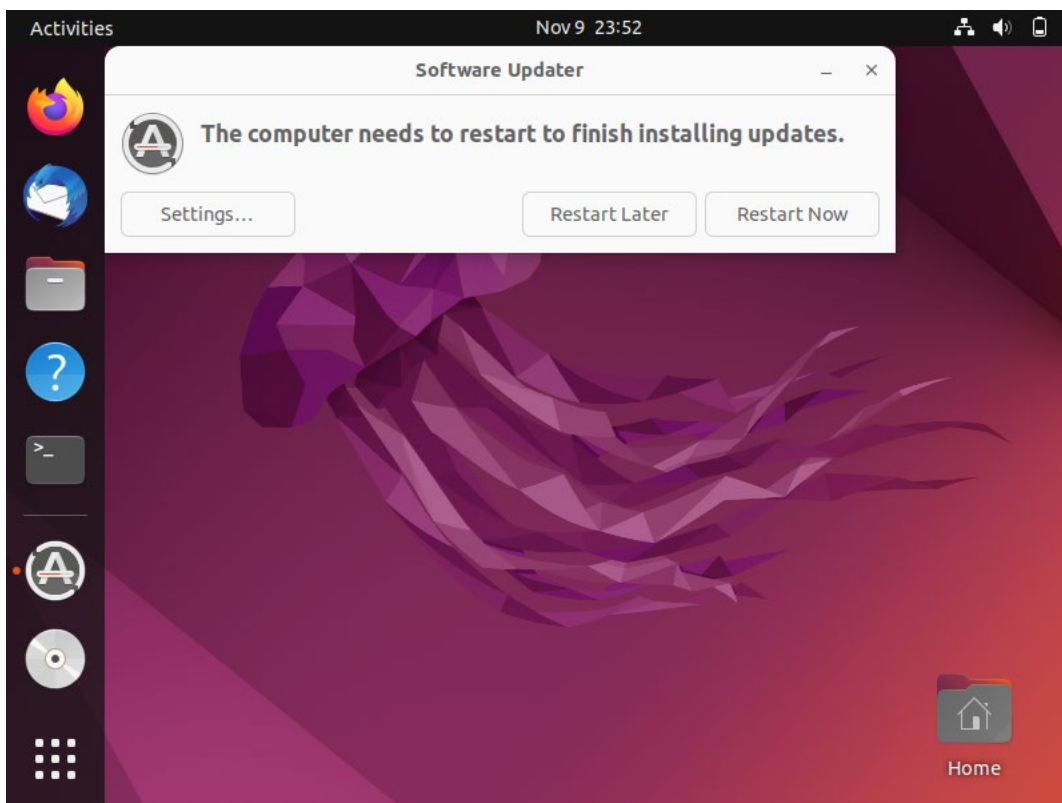
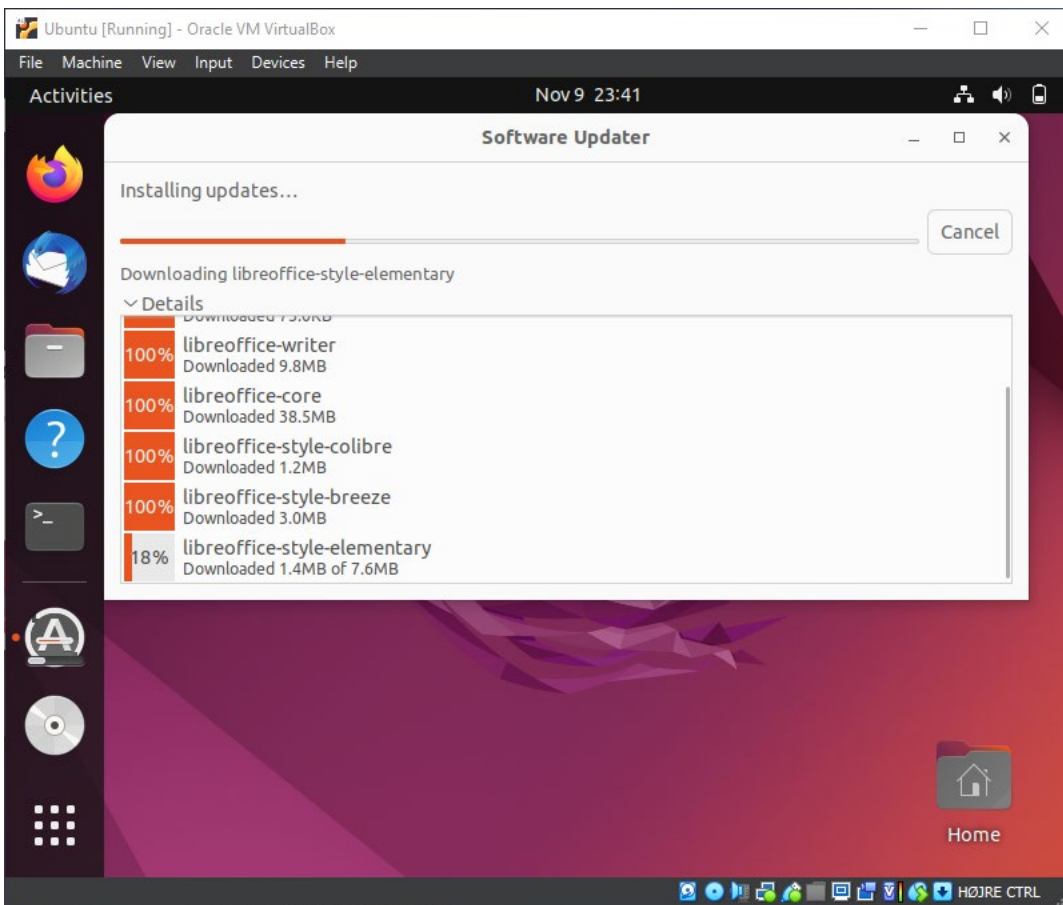
Please remove the installation medium, then press ENTER:

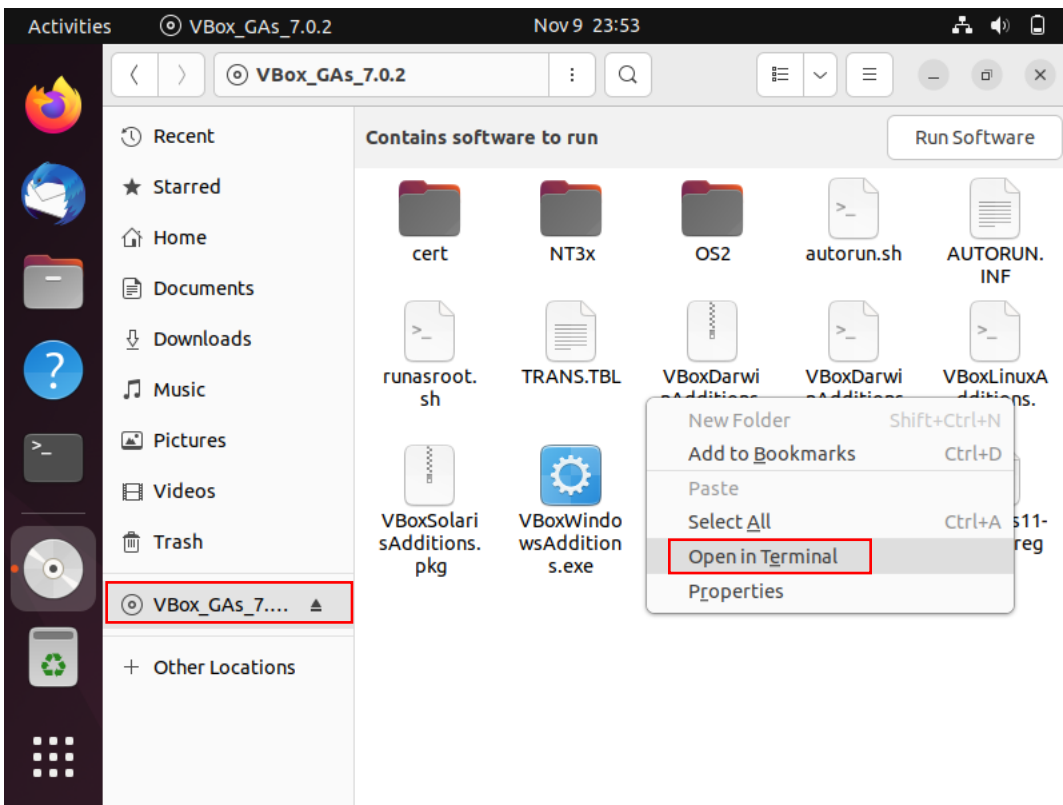
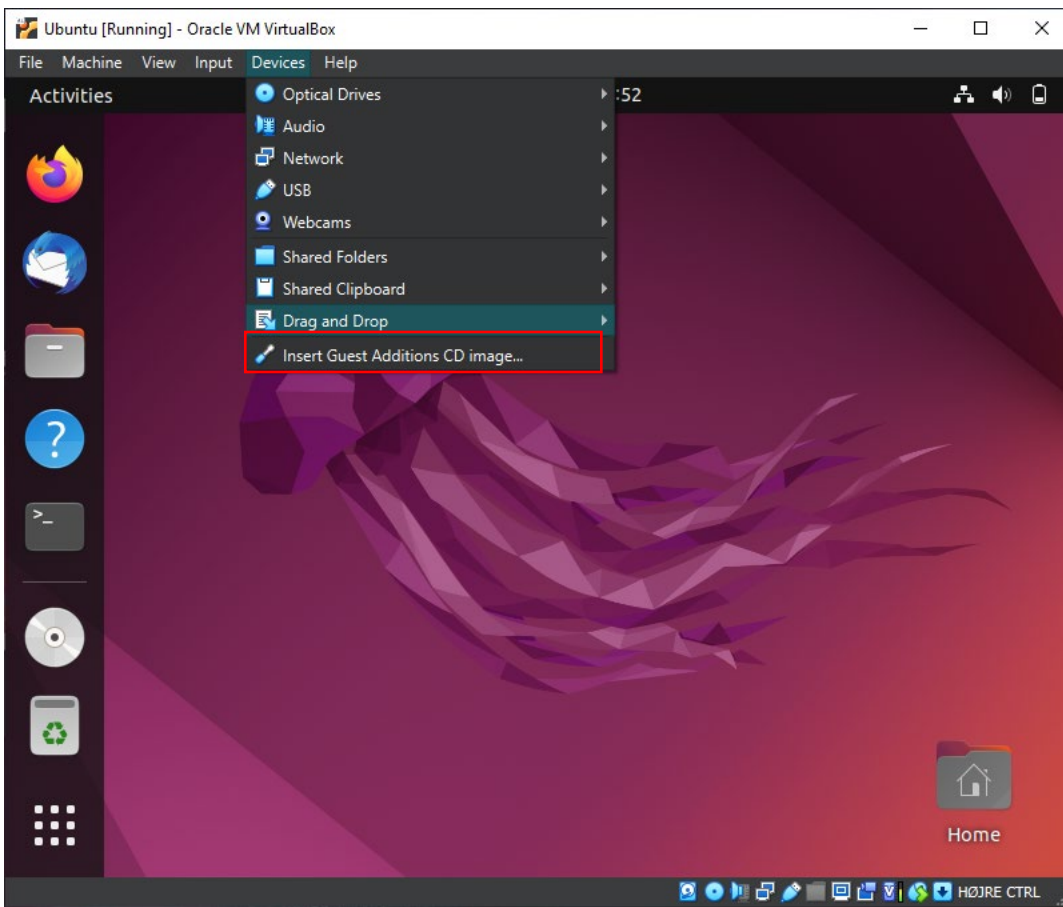


Ubuntu

Setup Share Clipboard & Shared Folder Between Guest & Host







Activities Terminal Nov 9 23:53

hungbui7690@hungbui7690-VirtualBox: /media/hungbui769...

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

```
hungbui7690@hungbui7690-VirtualBox: /media/hungbui7690/VBox_GAs_7.0.2$ ls
AUTORUN.INF  runasroot.sh          VBoxSolarisAdditions.pkg
autorun.sh   TRANS.TBL             VBoxWindowsAdditions-amd64.exe
cert         VBoxDarwinAdditions.pkg  VBoxWindowsAdditions.exe
NT3x         VBoxDarwinAdditionsUninstall.tool  VBoxWindowsAdditions-x86.exe
OS2          VBoxLinuxAdditions.run   windows11-bypass.reg
hungbui7690@hungbui7690-VirtualBox: /media/hungbui7690/VBox_GAs_7.0.2$ ./autorun
.sh
```

Activities Terminal Nov 9 23:54

VirtualBox Guest Additions installation

hungbui7690@hungbui7690-VirtualBox: ... VirtualBox Guest Additions installation

```
Verifying archive integrity... 100% MD5 checksums are OK. All good.
Uncompressing VirtualBox 7.0.2 Guest Additions for Linux 100%
VirtualBox Guest Additions installer
VirtualBox Guest Additions: Starting.
VirtualBox Guest Additions: Setting up modules
VirtualBox Guest Additions: Building the VirtualBox Guest Additions kernel
modules. This may take a while.
VirtualBox Guest Additions: To build modules for other installed kernels, run
VirtualBox Guest Additions: /sbin/rcvboxadd quicksetup <version>
VirtualBox Guest Additions: or
VirtualBox Guest Additions: /sbin/rcvboxadd quicksetup all
VirtualBox Guest Additions: Building the modules for kernel 5.15.0-52-generic.

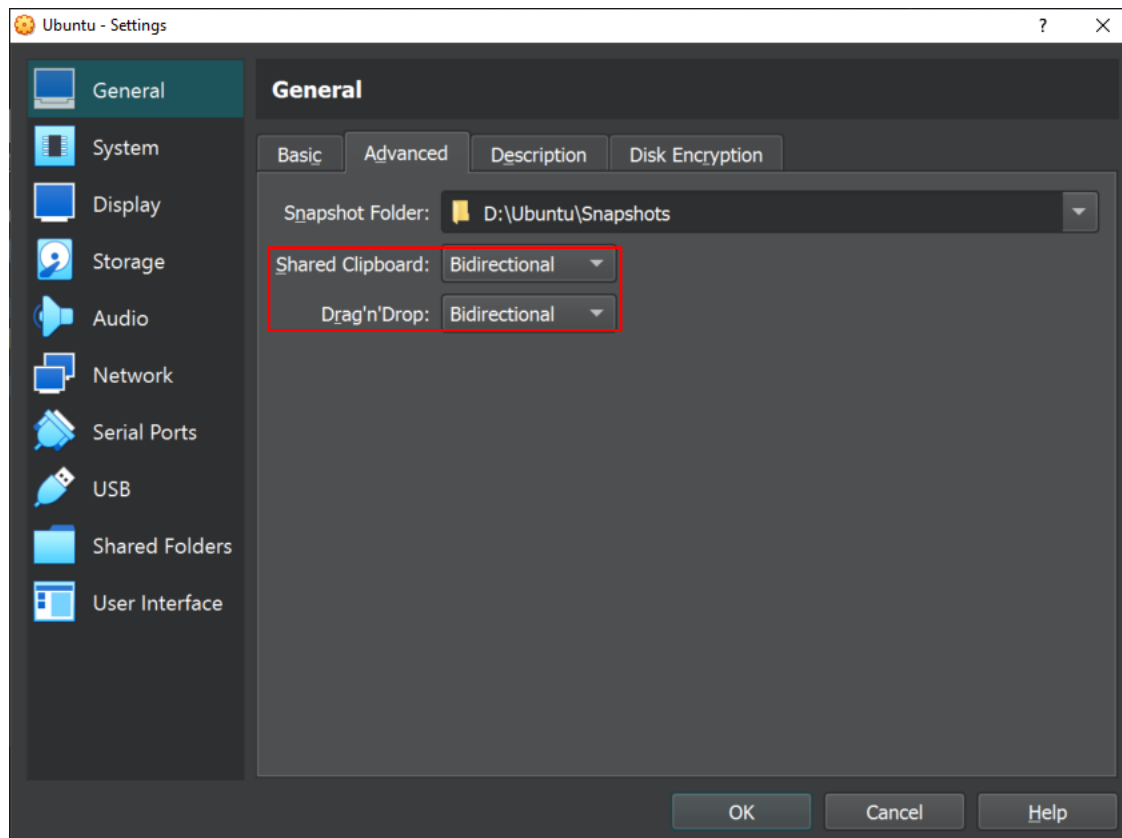
This system is currently not set up to build kernel modules.
Please install the gcc make perl packages from your distribution.
VirtualBox Guest Additions: Running kernel modules will not be replaced until
the system is restarted
Press Return to close this window...
```

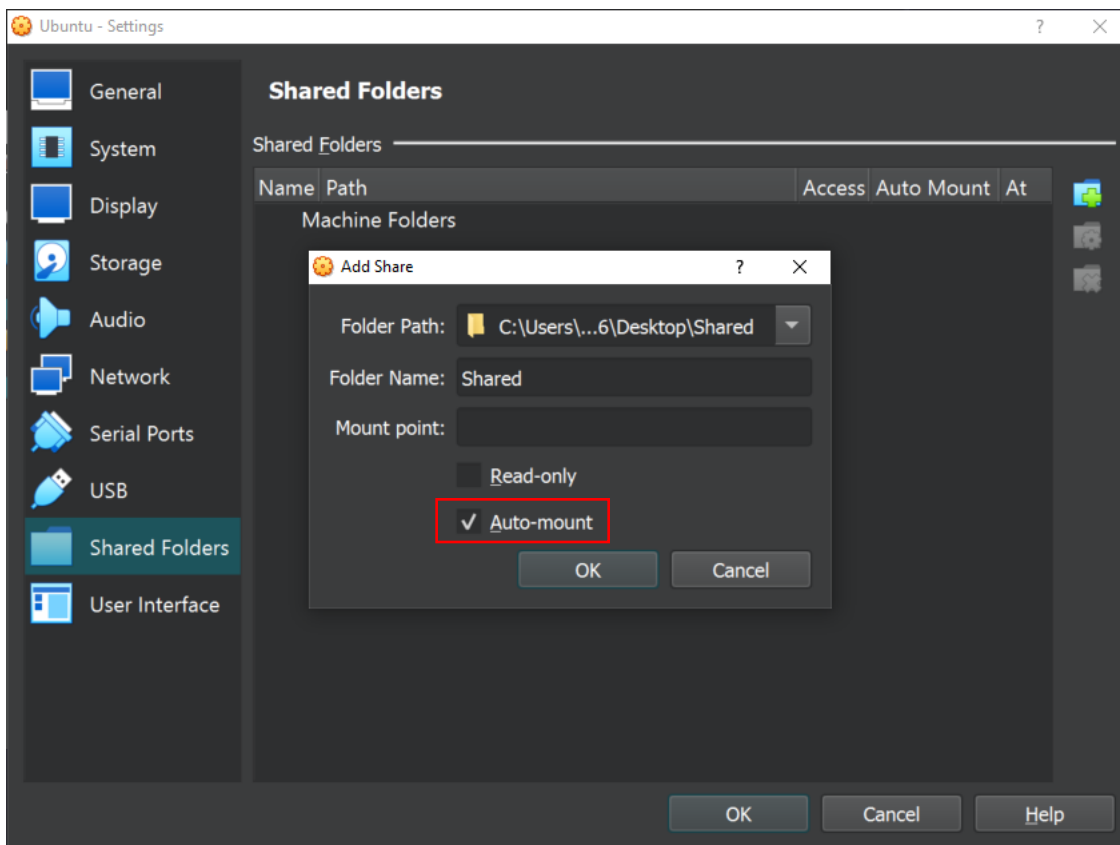

Activities Terminal Nov 9 23:54

hungbui7690@hungbui7690-VirtualBox: /media/hungbui769...

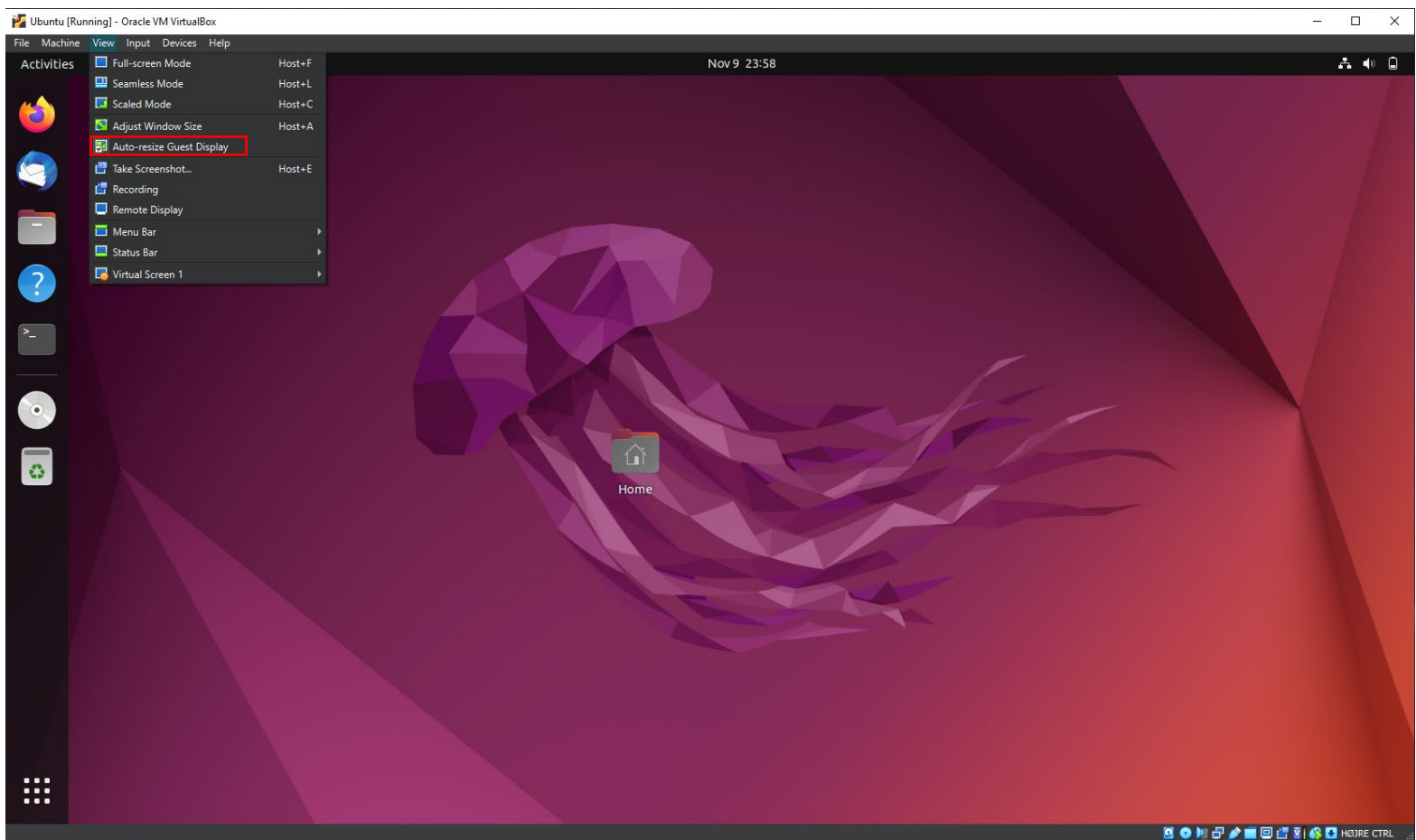
```
.sh
# Option "-x" is deprecated and might be removed in a later version of gnome-terminal.
# Use "--" to terminate the options and put the command line to execute after it.
hungbui7690@hungbui7690-VirtualBox: /media/hungbui7690/VBox_GAs_7.0.2$ sudo apt install gcc make perl
[sudo] password for hungbui7690:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
perl is already the newest version (5.34.0-3ubuntu1.1).
perl set to manually installed.
The following packages were automatically installed and are no longer required:
  libflashrom1 libftdi1-2
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  binutils binutils-common binutils-x86-64-linux-gnu gcc-11 libasan6
  libatomic1 libbinutils libc-dev-bin libc-devtools libc6-dev libcc1-0
  libcrypt-dev libctf-nobfd0 libctf0 libgcc-11-dev libitm1 liblsan0
  libnspr-dev libquadmath0 libtirpc-dev libtsan0 libubsan1 linux-libc-dev
  manpages-dev rpcsvc-proto
Suggested packages:
  binutils-doc gcc-multilib autoconf automake libtool flex bison gcc-doc
  gcc-11-multilib gcc-11-doc gcc-11-locales glibc-doc make-doc
The following NEW packages will be installed:
  binutils binutils-common binutils-x86-64-linux-gnu gcc gcc-11 libasan6
  libatomic1 libbinutils libc-dev-bin libc-devtools libc6-dev libcc1-0
  libcrypt-dev libctf-nobfd0 libctf0 libgcc-11-dev libitm1 liblsan0
```

cài xong shutdown





xong khởi động vm



đã có thể sử dụng Auto Resize Guest Display và có thể Share Clipboard

▲ Add yourself to the `vboxsf` group within the guest VM.

1299 Solution 1

▼ Run `sudo adduser $USER vboxsf` from terminal.

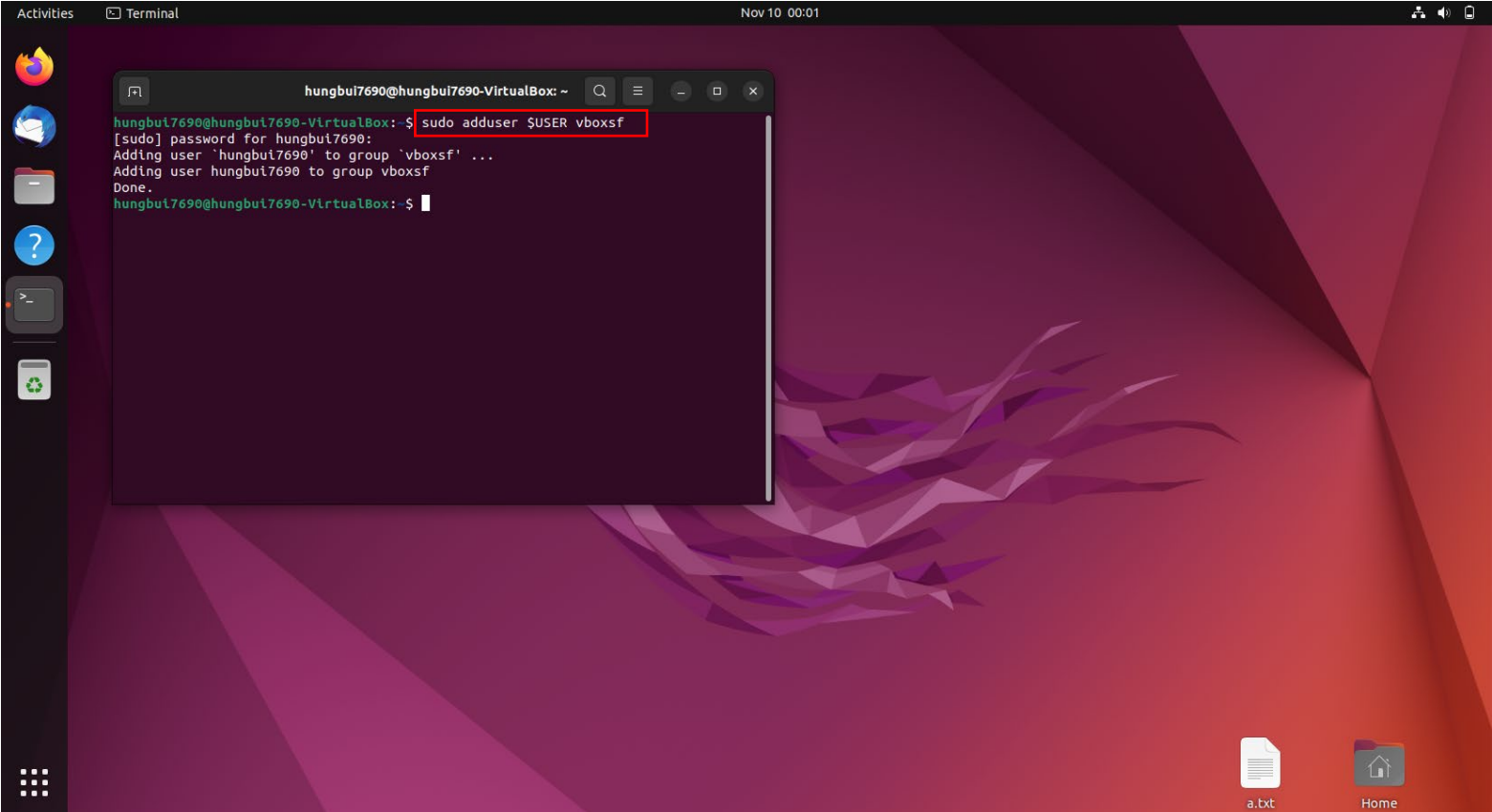
(On Suse it's `sudo usermod --append --groups vboxsf $USER`)

✓ To take effect you should log out and then log in, or you may need to reboot.

🔄 Solution 2

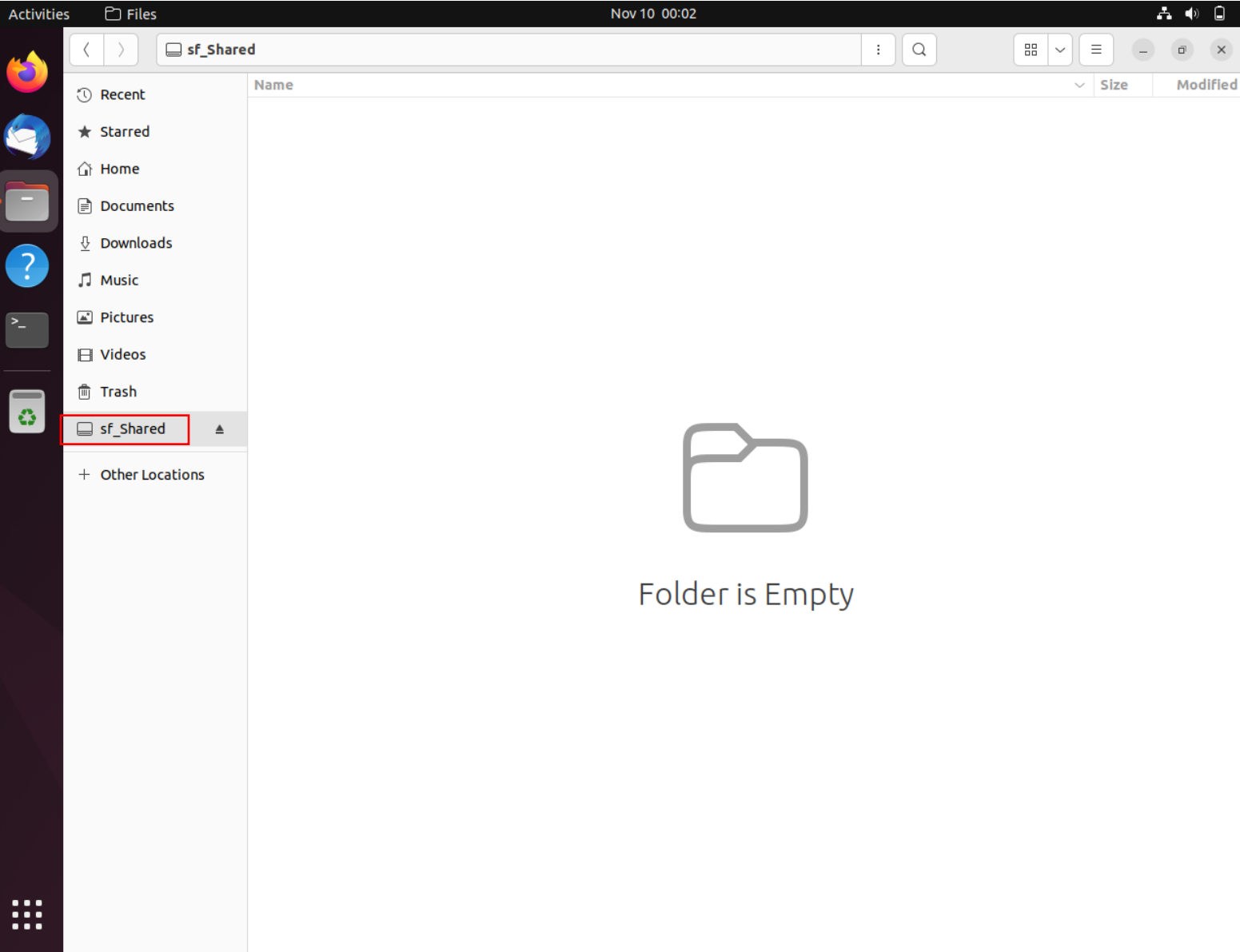
Edit the file `/etc/group` (you will need root privileges). Look for the line `vboxsf:x:999` and add at the end `:yourusername` -- use this solution if you don't have sudo.

To take effect you should log out and then log in, or you may need to reboot.



The screenshot shows a Linux desktop environment with a dark purple and red geometric wallpaper. A terminal window is open, displaying the command `sudo adduser $USER vboxsf` being executed. The terminal output shows the user's password being entered, the user being added to the `vboxsf` group, and the process completing successfully. The desktop has a sidebar with application icons (Firefox, Nautilus, Dash, etc.) and a taskbar at the bottom with icons for a file named `a.txt` and a `Home` directory.

```
hungbui7690@hungbui7690-VirtualBox: ~  
hungbui7690@hungbui7690-VirtualBox:~$ sudo adduser $USER vboxsf  
[sudo] password for hungbui7690:  
Adding user 'hungbui7690' to group 'vboxsf' ...  
Adding user hungbui7690 to group vboxsf  
Done.  
hungbui7690@hungbui7690-VirtualBox:~$
```



đã có thể sử dụng shared folder